

GE Healthcare

EVERYTHING FLOWS TOGETHER

Avance* CS² with ecoFLOW



ANAESTHESIA REMASTERED. A CARESTATION FOR THE MODERN AGE.

How do you deliver the exciting potential of new technology and integrate it seamlessly into a familiar platform? You have to create a new, modern class of anaesthesia system and ground it with practical userfriendly features so that everything flows together.

Although redesigned from the ground up, we built the Avance CS² using familiar platform components from the original Avance Carestation*, leveraging our 100 year expertise as a global leader in anaesthesia delivery.

We then chose to enhance it even further with innovative technologies and intuitive workflow features for those who value sophisticated, high-acuity care.

Anchoring the Avance CS² is a sleek user-interface enabled by a beautiful 15inch touchscreen display. See for yourself how it can help take the work out of your workflow.

With everything flowing together, the Avance CS² isn't just another anaesthesia delivery system. It's a Carestation.





INTRODUCING ecoFLOW



LOW FLOW. HIGH IMPACT.

Clinicians skilled in the practice of low and minimal flow anaesthesia delivery understand that sometimes less is more. That's why we developed ecoFLOW. an efficient anaesthesia delivery technology that helps you avoid unnecessarily high fresh gas flow rates while providing visual guidance to help optimize patient oxygenation.

Anaesthetic agents are not only costly, but scientific evidence suggests that excess inhaled agents released into the atmosphere have the potential to affect the environment¹. Offered on the Avance CS², ecoFLOW may have a positive impact on the environment when agent waste gases are reduced.

Bringing anaesthesia technologies like ecoFLOW to the forefront of your OR care has its benefits.

Our ecoFLOW technology brings a new way of displaying oxygen and agent flow tubes. Through an easy to understand digital display, the ecoFLOW option can show you your pre-set target and calculate cost per hour of agent used.



PATIENT

ecoFLOW helps optimize patient oxygenation. Rapid wash-in and wash-out of oxygen and anaesthetic agent may help optimize time and workflow in the operating room



ECONOMICAL

Using less agent means spending less money, which can have a positive impact on your bottom line.



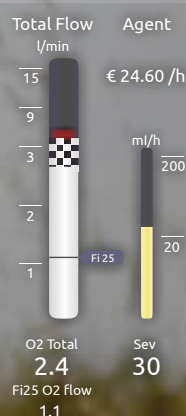
ECOLOGICAL

Efficient, lower flow reduces agent and gas waste, addressing concerns about volatile greenhouse gas emissions

ECOFLOW TECHNOLOGY

A new way to look at flow tubes with information to help you ensure adequate oxygenation guidance

The illustrating shows flows above the Fi25 target as potential waste gas or excess to the patient's consumption.



ECOFLOW SAVINGS

ecoFLOW shows you a target and calculates cost per hour of liquid agent that corresponds to your set flow and vaporizer setting.

Use the information to adjust O₂ flow to help avoid hypoxic delivery or excess O₂ delivery.



PRECISE CARE. WITH A PERSONAL TOUCH.

We know how much time you spend working with anaesthesia systems. In fact, we analyzed countless Avance Carestation data logs reviewing keystrokes and menu interactions to design intuitive menus and alarms along with a user interface that truly fits the way you work.

Every Avance CS² represents a convergence of our premium anaesthesia and patient monitoring heritage. We've seamlessly integrated patient monitoring and data management through a user interface similar to our CARESCAPE* monitors. Featuring the same engaging touch screen technology found on most consumer digital devices today, the 15-inch ventilator display makes navigation, monitoring and operation easy and intuitive. With time-saving quick pick choices, flat menus and tunneling alarms, the Avance CS² can help you deliver precise care with a personal touch every day.



TURN WORKFLOW INTO CAREFLOW.

The advanced features and technologies built into the Avance CS² were thoughtfully designed to work together to make your workflow easier. We engineered each piece of hardware, software and technology to not only be innovative on their own merit, but to fit together in harmony so everything just works.

We've built our ventilation engine around the electromagnetic proportional flow valve that precisely controls delivered volumes and pressures similar to those found in ICU ventilators like our Engström* Carestation. This helps you ventilate the most difficult patients, from neonates, to the lung compromised to the morbidly obese.

ADEQUACY OF ANAESTHESIA*

The Adequacy of Anaesthesia (AoA) concept is our commitment to provide clinical measurements for the components required for general anaesthesia. These measurements help you deliver tailor-made anaesthesia to each patient. The components of the Adequacy of Anaesthesia concept are Entropy*, Surgical Pleth Index**, Neuromuscular Transmission and Haemodynamic Parameters.

NAVIGATOR* APPLICATIONS SUITE

The Navigator Applications Suite provides PK/PD modeling for clinical decision support to help you balance drug delivery. Predictive drug modeling, including synergistic interaction with total drug effect display can support you in optimizing patient management based on your clinical judgment.



Neonatal Ventilation



Lung Ventilation
PROCEDURES



Advanced Breathing
System (ABS)



Adequacy of
Anaesthesia





- 1 FLEXIBLE 15 - INCH TOUCH SCREEN DISPLAY
- 2 CENTRAL BRAKE
- 3 TWO OR THREE VAPORIZER OPTION
- 4 DUAL - LEVEL ILLUMINATED DESKTOP
- 5 ERGONOMIC GRIPS AND HANDLES
- 6 ADVANCED BREATHING SYSTEM
- 7 INNOVATIVE GE HEALTHCARE GAS MONITORING TECHNOLOGY
- 8 CARESCAPE MONITOR B650 WITH ADEQUACY OF ANAESTHESIA (AoA) SOFTWARE SPECIFICALLY DESIGNED FOR YOUR OPERATING ROOM NEEDS



SAFETY IN NUMBERS. OVER A CENTURY OF ANAESTHESIA INNOVATION.

From Thomas Edison's first commercially viable light bulb to our first fully digital³ anaesthesia Carestation, we've continued to redefine what's possible. Today, we provide anaesthesia technologies in nearly every country in the world, collaborating closely with clinicians like you to impact the lives of your patients.

OVER
100
YEARS
IN ANAESTHESIA

OVER
100
CURRENTLY
ACTIVE PATENTS⁴

OVER
100
THOUSAND UNITS
SOLD WORLDWIDE⁵

1. There are several online resources available to learn more about the environmental impact of anaesthetic agents including: General Anesthetic Gases and the Global Environment (author Yumiko Ishizawa, MD, MPH, PhD) Anesth. Analg. September, 2010 Global Warming Potential of Inhaled Anesthetics: Application to Clinical Use (authors: Susan M. Ryan, MD, PhD, and Claus J. Nielsen, CSc) International Society for Anaesthetic Pharmacology July 2010 www.anesthesia-analgesia.org

2. Schober P, Loer SA. Closed system anaesthesia—historical aspects and recent developments. Eur J Anaesthesiol 20–23:914;2006

3. Aisys Carestation primary elements including ventilator, vaporizer and gas delivery are digitally controlled.

4. As of May 2012, active GE Healthcare anaesthesia and respiratory patents issued in the United States.

5. Anaesthesia machine shipments over the past 25 years based on GE Healthcare shipping data.



Avance* CS²

Precise care.
With a personal touch.

Features

- Movable 15" touch screen with CARESCAPE* user interface for the unified CARESTATION* user experience with GE CARESCAPE monitors
- ecoFLOW provides information that may help clinicians mitigate the risk of hypoxic mixtures during low and minimum flow
- ecoFLOW for visualizing agent consumption and help in mitigating wasteful over delivery of fresh gas flow
- User configurable 'Quick Picks' for rapid selection of FiO₂ and total flow combinations

Ventilation Options

- With 'Flow Power Inside' our ventilator engine can ventilate all patient types from neonates to large adults
- Sophisticated mechanical ventilation and assisted ventilation options including synchronised PCV-VG with pressure support (SIMV PCV-VG) and minimum rate ventilation (CPAP+PSV)
- Vital capacity and Cycling lung ventilation procedures

Advanced Breathing System (ABS*)

- Compact breathing system specifically designed for low flow to help provide fast gas kinetics for rapid wash-in and wash-out
- Continual fresh gas flow with fresh gas flow compensation during mechanical ventilation



Exceptional Design

- Central brake
- Top shelf mounting rails
- Metal work surface
- Movable display arm for inbound and outboard positioning
- Two or three vaporiser positions
- Bi-level work surface illumination

Physical Specifications

Dimensions

Height:	139 cm
Width:	77 cm
Depth:	76 cm
Weight:	147 kg ¹

Top shelf

Weight limit:	34 kg/75 lb
Width:	69.7 cm
Depth:	44 cm

Work surface

Height:	81.7 cm/32.2 in
Size:	2640 cm ² /409 in ²

Upper left GCX/DO dovetail

GCX length:	13.2 cm
DO dovetail length:	23.2 cm

Upper right DO dovetail

Length:	34 cm
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Lower right GCX rail

Length :	41 cm
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Drawers (internal dimensions)

Height:	17.5 cm/6.9 in
Width:	33 cm/13 in
Depth:	26.5 cm/10.4 in

Absorber bag arm (optional)

Arm length:	39.8 cm/15.7 in
Bag arm height (adjustable):	87 cm/34.3 in 113 cm/44.4 in

Casters

Diameter:	13 cm
Brakes:	Central Brake



Ventilator Operating Specifications

Modes of ventilation – standard

VCV (Volume Control) Mode with tidal volume compensation

Modes of ventilation – optional

Pressure Control

Pressure Controlled Ventilation-Volume Guaranteed (PCV-VG)

SIMV (Synchronized Intermittent Mandatory Ventilation) (volume and pressure)

PSVPro* (Pressure Support with Apnea backup)

CPAP+PSV (Pressure support mode)

SIMV PCV-VG

Ventilator parameter ranges

Tidal volume range:	5 to 1500ml (Volume Control, PCV-VG and SIMV volume 20 to 1500ml) (PCV modes 5 to 1500ml)
Incremental settings:	20 to 50 mL (increments of 1 mL) 50 to 100 mL (increments of 5 mL) 100 to 300 mL (increments of 10 mL) 300 to 1000 mL (increments of 25 mL) 1000 to 1500 mL (increments of 50 mL)
Minute volume range:	Less than 0.1 to 99.9 L/min
Pressure ($P_{inspired}$) range:	5 to 60 cmH ₂ O (increments of 1 cmH ₂ O) 5 to 1500 mL volume delivery
Pressure (P_{max}) range:	12 to 100 cmH ₂ O (increments of 1 cmH ₂ O)
Pressure ($P_{support}$) range:	Off, 2 to 40 cmH ₂ O (increments of 1 cmH ₂ O)

¹ Excludes vaporisers, airway gas module and patient monitor.

Rate:	4 to 100 breaths per minute for Volume Control and Pressure Control; 2 to 60 breaths per minute for SIMV, PSVPro and SIMV PCV-VG; 4 to 60 bpm for CPAP+PSV (increments of 1 breath per minute)
Inspiratory/ expiratory ratio:	2:1 to 1:8 (increments of 0.5)
Inspiratory time:	0.2 to 5.0 seconds (increments of 0.1 seconds) (SIMV, PSVPro and CPAP PSV)
Trigger window:	0 to 80% (increments of 5%)
Flow trigger:	1 to 10 L/min (increments of 0.5 L/min) 0.2 to 1 L/min (increments of 0.2 L/min)
Inspiration termination level:	5 to 75% (increments of 5%)
Inspiratory Pause range:	0-60%

Positive End Expiratory Pressure (PEEP)

Type:	Integrated, electronically controlled
Range:	OFF, 4 to 30 cmH ₂ O (increments of 1 cmH ₂ O)

Ventilator performance

Pressure range at inlet:	240 kPa to 700 kPa (35 psig to 100 psig)
Peak gas flow:	120 L/min + fresh gas flow
Flow valve range:	1 to 120 L/min
Flow compensation range:	150 mL/min to 15 L/min

Ventilator Accuracy

Delivery/monitoring accuracy

Volume delivery:	> 210 mL = better than 7% ≤ 210 mL = better than 15 mL < 60 mL = better than 10 mL
Pressure delivery:	±10% or ±3 cmH ₂ O
PEEP delivery:	±1.5 cmH ₂ O
Volume monitoring:	> 210 mL = better than 9% ≤ 210 mL = better than 18 mL < 60 mL = better than 10 mL
Pressure monitoring:	±5% or ±2 cmH ₂ O

Alarm settings

Tidal volume (V _T):	Low: OFF, 1 to 1500 mL High: 20 to 1600 mL, OFF
Minute volume (V _E):	Low: OFF, 0.1 to 10 L/min High: 0.5 to 30 L/min, OFF
Inspired oxygen (FiO ₂):	Low: 18 to 99% High: 19 to 100%, OFF
Apnea alarm:	<i>Mechanical ventilation ON:</i> < 5 mL breath measured in 30 seconds <i>Mechanical ventilation OFF:</i> < 5 mL breath measured in 30 seconds
Low airway pressure:	4 cmH ₂ O above PEEP
High pressure:	12 to 100 cmH ₂ O (increments of 1 cmH ₂ O)
Sustained airway pressure:	<i>Mechanical ventilation ON:</i> P _{max} < 30 cmH ₂ O, the sustained limit is 6 cmH ₂ O P _{max} 30 to 60 cmH ₂ O, the sustained limit is 20% of P _{max} P _{max} > 60 cmH ₂ O, the sustained limit is 12 cmH ₂ O <i>PEEP and mechanical ventilation ON</i> Sustained limit increases by PEEP minus 2 cmH ₂ O <i>Mechanical ventilation OFF:</i> P _{max} ≤ 60 cmH ₂ O, the sustained limit is 50% of P _{max} P _{max} > 60 cmH ₂ O, the sustained limit is 30 cmH ₂ O
Subatmospheric pressure:	Paw < -10 cmH ₂ O
Audio pause countdown clock:	120 to 0 seconds

Ventilator Components

Flow transducer

Type:	Variable orifice flow sensor
Dimensions:	22 mm OD and 15 mm ID
Location:	Inspiratory outlet and expiratory inlet
(Optional autoclavable sensor available)	

Oxygen sensor

Type:	Optional galvanic fuel cell or paramagnetic with Airway Module option
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Ventilator screen

Display size:	15 inch
Pixel format:	1024 x 768

Battery backup

Backup power:	Demonstrated battery time is up to 90 minutes when fully charged. Battery time under extreme conditions is 30 minutes.
Battery type:	Internal rechargeable sealed lead acid

Communication ports

RS-232C compatible serial interface
Ethernet
Datex-Ohmeda device interface solutions port
USB port
VGA Output

Anesthetic Agent Delivery

Delivery

Vaporizers:	Tec* 6 Plus, Tec 7
Number of positions:	2 (3 as an option)
Mounting:	Tool-free installation Selectatec* manifold interlocks and isolates vaporizers

Airway Modules

General

M-CAiO, M-CAiOV, M-CAiOVX module software version 3.2 or higher; E-CAiO, ECAiOV, E-CAiOVX

Size (WxDxH): 75 x 228 x 112 mm/
3.0 x 9.0 x 4.4 in

Weight: 1.6 kg/3.5 lb

Sampling rate: 200 mL/min \pm 20 mL

E-sCAiO, E-sCAiOV

Size (WxDxH): 38 x 205 x 113 mm/
1.5 x 8.1 x 4.4 in

Weight: 0.7 kg/1.5 lb

Sampling rate: 120 mL/min \pm 20 mL

Automatic compensation for atmospheric pressure variation (500 to 800 mmHg for E-, M-series modules; 495 to 795 mmHg for CARESCAPE modules) temperature and CO₂/N₂O and CO₂/O₂ collision broadening effect. Parameter display update interval typically breath-by-breath. Functional alarms for blocked sample line, D-fend check and D-fend replacement.

Non-disturbing gases:

Ethanol, acetone, methane, nitrogen, nitric oxide, carbon monoxide, water vapor:

Maximum effect on readings: CO₂ < 0.2 vol %; O₂, N₂O < 2 vol %

Carbon dioxide (CO₂)

EtCO ₂ :	End-tidal CO ₂ concentration
FiCO ₂ :	Inspired CO ₂ concentration

CO₂ waveform

Measurement range: 0 to 15%
(0 to 15 kPa, 0 to 113 mmHg)

Accuracy: \pm 0.2 vol % + 2 % of reading

Datex-Ohmeda infrared sensor

Adjustable low and high alarm limits for EtCO₂ and FiCO₂

Respiration rate (RR)

Measurement range: 4 to 60 breaths/min for E-, M-series modules

4 to 100 breaths/min for CARESCAPE modules

Detection criteria: 1% variation in CO₂

Adjustable low and high alarm limits for respiration rate; alarm for apnea

Patient Oxygen (O₂)

FiO ₂ :	Inspired O ₂ concentration
EtO ₂ :	End-tidal O ₂ concentration
FiO ₂ -EtO ₂ :	Inspired-expired difference

O₂ Measurement

Measurement range: 0 to 100%

Accuracy: \pm 1 vol % + 2 % of reading

Datex-Ohmeda differential paramagnetic sensor

Adjustable low and high alarm limits for FiO₂ and EtO₂; alarm for FiO₂ < 18%

Nitrous Oxide (N₂O)

Measurement range: 0 to 100%

Accuracy: \pm 2 vol % + 2 % of reading

Anesthetic Agent (AA)

Halothane, Isoflurane, Enflurane

Measurement range: 0 to 6%

Accuracy: \pm (0.15 vol % + 5% of reading)

<i>Sevoflurane</i>	
Measurement range:	0 to 8%
Accuracy:	±(0.15 vol% +5% of reading)
<i>Desflurane</i>	
Measurement range:	0 to 20%
Accuracy:	±(0.15 vol% +5% of reading)

Waveform displayed
MAC value displayed
Identification threshold: 0.15 vol %¹
Agent mixture detection
Adjustable high and low alarm limits for EtAA, FiAA

Patient Spirometry*

Pressure-volume loop
Pressure-flow loop
Flow-volume loop
Airway pressure and flow waveforms
Adjustable low and high alarm limits for P_{peak} , $PEEP_{tot}$ and MV_{exp}
Alarms for $MV_{exp} \ll MV_{insp}$ and for MV_{exp} low. Detection through D-lite* or Pedi-lite* flow sensor and gas sampler with following specifications:

Compact Airway Modules

	<i>D-lite</i>	<i>Pedi-lite</i>
Respiration rate:	4 to 35 breaths/min	4 to 50 breaths/min
<i>Tidal volume</i>		
Measurement range:	150 to 2000 mL	15 to 300 mL
Accuracy ¹ :	±6% or 30 mL	±6% or 4 mL
<i>Minute volume</i>		
Measurement range:	2 to 20 L/min	0.5 to 5 L/min
Accuracy ¹ :	±6%	±6%
<i>Airway pressure</i>		
Measurement range:	-20 to +100 cmH ₂ O	
Accuracy ¹ :	±1 cmH ₂ O	
Display units:	cmH ₂ O, mmHg, kPa, mbar, hPa	
<i>Flow</i>		
Measurement range:	1.5 to 100 L/min	0.25 to 25 L/min

<i>I:E</i>	
Measurement range:	1:4.5 to 2:1
<i>Compliance</i>	
Measurement range:	4 to 100 mL/cmH ₂ O 1 to 100 mL/cmH ₂ O
<i>Airway resistance</i>	
Measurement range:	0 to 40 cmH ₂ O/L/s

CARESCAPE Airway Modules

	<i>D-lite(+)</i>	<i>Pedi-lite(-)</i>
Respiration rate:	4 to 35 breaths/min	4 to 70 breaths/min
<i>Tidal volume</i>		
Measurement range:	150 to 2000 mL	5 to 300 mL
Accuracy ¹ :	±6% or 30 mL	±6% or 4 mL
<i>Minute volume</i>		
Measurement range:	2 to 20 L/min	0.1 to 5 L/min
Accuracy ¹ :	±6%	±6%
<i>Airway pressure</i>		
Measurement range:	-20 to +100 cmH ₂ O	
Accuracy ¹ :	±1 cmH ₂ O	
Display units:	cmH ₂ O, mmHg, kPa, mbar, hPa	
<i>Flow</i>		
Measurement range:	-100 to 100 L/min	-25 to 25 L/min
<i>I:E</i>		
Measurement range:	1:4.5 to 2:1	
<i>Compliance</i>		
Measurement range:	4 to 100 mL/cmH ₂ O	1 to 100 mL/cmH ₂ O
<i>Airway resistance</i>		
Measurement range:	0 to 200 cmH ₂ O/L/s	

Sensor specifications

	<i>D-lite/ D-lite(+)</i>	<i>Pedi-lite/ Pedi-lite(+)</i>
Dead space:	9.5 mL	2.5 mL
<i>Resistance</i>		
at 30 L/min:	0.5 cmH ₂ O	
at 10 L/min:		1.0 cmH ₂ O

¹ Typical value

Electrical Specifications

Current leakage

100/120 V:	< 300 μ A
220/240 V:	< 500 μ A

Power

Power input:	100-120 Vac, 50/60 Hz 220-240 Vac, 50/60 Hz
Power cord:	Length: 5 m/16.4 ft Rating: 10A @ 250 Vac or 15A @ 125 Vac

Inlet/outlet modules

100 -120 V

System circuit breakers:	15A
Outlets:	4 outlets on back, 3-2A, 1-3A individual breakers, isolation transformer

220-240 V

System circuit breakers:	8A
Outlets (optional):	4 outlets on back, 3-1A, 1-2A individual breakers, isolation transformer

Pneumatic Specifications

Auxiliary common gas outlet (optional)

Connector:	ISO 22 mm OD and 15 mm ID
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Gas supply

Pipeline input range:	280 kPa to 600 kPa (41 psig to 87 psig)
Pipeline connections:	DISS-male, DISS-female, AS4059, BSPP 3/8, S90-116, or NIST All fittings available for O ₂ , N ₂ O, and Air, and contain pipeline filter and check valve
Cylinder input:	Pin indexed in accordance with CGA-V-1 or DIN (nut and gland); contains input filter and check valve.

Note: Maximum 3 cylinders

Primary regulator diaphragm minimum burst pressure:	2758 kPa/400 psig
Primary regulator nominal output:	\leq 345 kPa/50 psig Pin indexed cylinder connections \leq 414 kPa/60 psig DIN cylinder connections

O₂ controls

Method:	N ₂ O shut off with loss of O ₂ pressure
Supply failure alarm:	< 252 kPa (36.55 psig)
O ₂ flush:	Range: > 25 L/min

Alternate O₂ (safety flow)

Range:	500 mL/min minimum to 10 L/min
Indicator:	Flow tube
Indicator accuracy:	\pm 5% full scale

Fresh gas

Flow range:	0 and 150 mL/min to 15 L/min (minimal flow capable)
Total flow accuracy:	\pm 10% or \pm 40 mL/min of setting (larger of)
O ₂ flow accuracy:	\pm 5% or \pm 20 mL/min of setting (larger of)
Balance gas flow accuracy:	\pm 5% or \pm 20 mL/min of setting (larger of) Air/N ₂ O
O ₂ concentration range:	21% to 100% when Air is available
O ₂ concentration accuracy:	2.5% (Total Flow \leq 15 L/min) 5% (Total Flow < 1 L/min) 6.5% (Total Flow < 0.4 L/min)
Electronic mixer response time:	500mS (10% to 90% flow step)
Compensation:	Temperature and atmospheric pressure compensated to standard conditions of 20°C and 101.3 kPa
Hypoxic guard:	Electronic

Materials

All materials in contact with patient breathing gases are not made from natural rubber latex.

Environmental Specifications

System operation

Temperature:	10° to 40°C (50° to 104°F)
Humidity:	15 to 95% relative humidity (non-condensing)
Altitude:	-440 to 3000 m (537 to 800 mmHg)

System storage

Temperature:	-25° to 60°C (-13° to 140°F)
Humidity:	15 to 95% relative humidity (non-condensing)
Altitude:	-440 to 4880 m (425 to 800 mmHg)
Oxygen cell storage:	-15° to 50°C (5° to 122°F) 10 to 95% relative humidity 500 to 800 mmHg

Electromagnetic compatibility

Immunity:	Complies with all requirements of EN 60601-1-2
Emissions:	CISPR 11 group 1 class A
Approvals:	AAMI ES60601-1, CSA C22.2 #601.1, EN/IEC 60601-1, CE 0197, ISO 80601-2-13

Breathing Circuit Specifications

Operational modes

Breathing circuit is circle mode; SCGO option converts to open circuit mode

Carbon dioxide absorbent canister

Absorbent capacity:	800 g
Integrated expiratory limb water reservoir	

Ports and connectors

Exhalation:	22 mm OD ISO 15 mm ID taper
Inhalation:	22 mm OD ISO 15 mm ID taper
Bag port:	22 mm OD

Bag-to-Ventilator switch

Type:	Bi-stable
Control:	Controls ventilator and direction of breathing gas within the circuit

Integrated Adjustable Pressure Limiting (APL) valve

Range:	0.5 to 70 cmH ₂ O
Tactile knob indication at:	30 cmH ₂ O and above
Adjustment range of rotation:	0.5 to 30 cmH ₂ O (0 to 230°) 30 to 70 cmH ₂ O (230 to 330°)

Materials

All materials in contact with exhaled patient gases are autoclavable, except disposable flow sensors, O₂ cell, and Airway Modules. (Autoclavable flow sensors optional)

All materials in contact with patient gas are not made from natural rubber latex.

Breathing circuit parameters

Compliance:	Bag mode:	1.82 mL/cmH ₂ O
	Mechanical mode:	Automatically compensates for compression losses within the absorber and bellows assembly

Total circuit volume: 2.7 L Vent Mode
1.2 L Bag Mode

Note: Includes Absorber volume

Expiratory resistance:	<i>P_{exp}</i> Bag Mode <i>Pressure drop</i>	<i>P_{exp}</i> Vent Mode <i>Pressure drop</i>
Flow rate		
5 L/min	0.46 cmH ₂ O	0.46 cmH ₂ O
30 L/min	1.47 cmH ₂ O	1.55 cmH ₂ O
60 L/min	3.80 cmH ₂ O	4.09 cmH ₂ O

Note: Values include patient circuit tubing and wye piece (0.3 cmH₂O at 60 L/min)

Anesthetic gas scavenging

AGSS Type	Hospital extract system required	Machine connection
High vacuum, low flow with indicator:	High vacuum 36 L/min @ 12 in Hg (305 mmHg)	DISS evac
High vacuum, variable flow with bag indicator:	High vacuum 30 L/min extract flow @ 12 in Hg (305 mmHg)	DISS evac
Passive:	Passive or external active system with air break	30 mm/1.2 in M ISO taper

About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient systems, drug discovery, biopharmaceutical manufacturing technologies. performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our «healthymagination» vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com

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